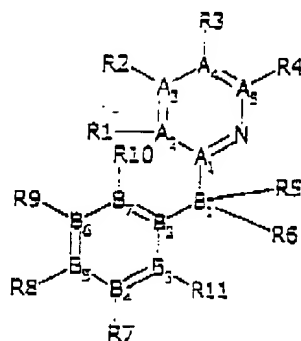


Clean Version of Claim 1 Including Proposed Changes Thereto

1. (Twice Amended) Substrate for packaging of or for attachment to products which are sensitive to aging and temperature, having a time-temperature integrator arranged in the region of the substrate, wherein the time-temperature integrator contains a matrix and at least one reversible, crystalline indicator embedded therein, which has photochromic properties on the basis of transfer reactions in crystalline materials, and wherein further the reversible indicator is characterized by a successive discoloration following photo-induced coloration thereof, the successive discoloration of the reversible indicator proceeding as a function of both time and temperature.

Clean Version of Claim 4 Including Proposed Changes Thereto

4. (Twice Amended) Substrate according to claim 1, wherein the reversible indicator has a skeletal structure according to the general formula I;



wherein A<sub>1</sub>-A<sub>5</sub> = carbon atom and/or heteroatom

R<sub>1</sub>-R<sub>4</sub> = hydrogen atom and/or isotope thereof, and/or Cl, F, Br, or a substituent selected from the group consisting of alkyl groups, methyl or aryl groups, and phenyl groups

R<sub>5</sub> = hydrogen atom or isotope thereof, or a substituent selected from the group consisting of Cl, F, Br, an alkyl group, a methyl group, an aryl group, phenyl group, and pyridine

R<sub>6</sub> = hydrogen atom or isotope thereof

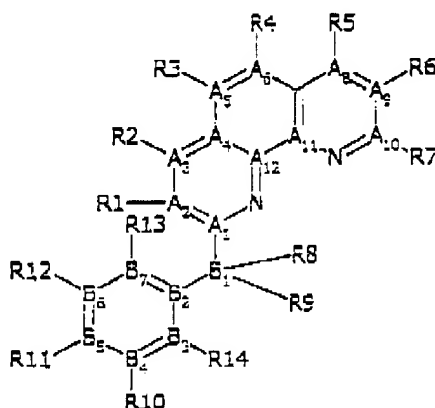
$B_1-B_7$  = carbon atom and/or heteroatom

$R_1-R_{10}$  = hydrogen atom and/or an isotope thereof, and/or one or more Cl, F, Br, amino groups, nitro groups, or one or more substituents selected from the group consisting of alkyl groups, methyl or aryl groups, and phenyl groups,

$R_{11}$  = nitro group or a cyano group or a carboxylic acid group or a variant selected from the group consisting of an ester, amide, ketone or aldehyde group.

Clean Version of Claim 5 Including Proposed Changes Thereto

5. (Amended) Substrate according to claim 1, wherein the reversible indicator has a skeletal structure according to the general formula II:



wherein  $A_1-A_{12}$  = carbon atom and/or a heteroatom

$R_1-R_7$  = hydrogen atom and/or isotope thereof, and/or Cl, F, B, or substituents selected from the group consisting of alkyl groups, methyl or aryl groups, and phenyl groups

$R_8$  = hydrogen atom or isotope thereof, or a substituent selected from the group consisting of Cl, F, Br, an alkyl group, phenyl group, and pyridine

$R_9$  = H, D, T

$B_1-B_7$  = carbon atom and/or heteroatom

$R_{10}-R_{13}$  = hydrogen atom and/or isotope thereof, and/or one or more Cl, F, Br, amino groups, nitro groups, or one or more substituents selected from the group consisting of alkyl groups, methyl or aryl groups, and phenyl groups

$R_{14}$  = a nitro group, a cyano group, a carboxylic acid group, an ester, an amide, a ketone, or an aldehyde group.

Clean Version of Claim 19 Including Proposed Changes Thereto

19. (Twice Amended) Process for determination of quality of products which are sensitive to aging and temperature comprising the steps of :

- a) providing a substrate for packaging of or for attachment to a product which is sensitive to aging and temperature, having a time-temperature integrator arranged in the region of the substrate, wherein the time-temperature integrator contains a matrix and at least one reversible, crystalline indicator embedded therein, which has photochromic properties on the basis of transfer reactions in crystalline materials, and wherein further the reversible indicator is characterized by a successive discoloration following photo-induced coloration thereof, the successive discoloration of the reversible indicator proceeding as a function of both time and temperature;
- b) effecting photo-induced coloration of the reversible indicator; and
- c) determining the degree of time-related and temperature-related discoloration and the quality of the product taking into account the degree of discoloration.